

MOGIL'NITSKIY, I.D., GRIBOVSKIY, K.A.

New methods of investigating the sintering process. TSvet. met.  
33 no.7:19-23 J1 '60. (MIRA 13:7)  
(Sintering)

65691

SOV/136-59-10-8/18

Investigation of Gas Flow in Sintering Machines

windboxes were calculated. The results are plotted against windbox number in Fig 5 for bad (interrupted lines) and good sintering. From their investigation, the authors conclude that special measures should be taken to reduce leakage at the first windbox; side air leaks should be reduced by better sealing and by increasing charge permeability; if air flow over the middle windboxes, where water condensation reduces permeability, could be increased, sintering speed and product quality would improve. There are 5 figures.

Card 3/3

65691

SOV/136-59-10-6/16

### Investigation of Gas Flow in Sintering Machines

16% MgO. Air flow and temperature were measured at 240 points on the surface, simultaneous measurements of pressure and temperature being made under the pallet at 3 points across the pallet and gas samples being taken under the centre of the pallet. The air velocity through the side gaps and gaps between windboxes and pressure velocity, temperature and composition of the gas in the windlegs and at the fan was measured at the same time. Fig 2 gives average gas temperatures in windboxes and windlegs as functions of windbox number. Gas composition in windlegs (interrupted lines) and under the pallet are similarly plotted in Fig 3. Plots of gas flow, density and gas flow expressed as percentage of total flow through all windpipes are given in Fig 4 against windbox number as curves v, p and Q respectively, for satisfactory sintering. Gas analyses showed that some combustion of carbon to CO occurs in the windboxes and windlegs; allowing for this and the difference in O<sub>2</sub>, CO<sub>2</sub> and CO contents below the pallets and in the windlegs, the extent of leakage and air flow through the mix as a percentage of total flow through all

Card 2/3

18.2000

65691

SOV/136-59-16-8/18

**AUTHORS:** ~~Mogil'nitskiy, I.D.~~, Candidate of Technical Sciences  
and Gribovskiy, K.A., Engineer

**TITLE:** Investigation of Gas Flow in Sintering Machines

**PERIODICAL:** Tsvetnyye metally, 1959, Nr 10, pp 46-52 (USSR)

**ABSTRACT:** The authors report an investigation on air and waste-gas flow in nickel-works sintering machines (Fig 1) with 2 m wide, 25 m long strands having 13 windboxes and a fan capacity of 3500 m<sup>3</sup>/min at 1000 mm water gauge. The aim was to study changes along the strand of pressure, temperature, composition and flow of waste gases and to evaluate the side and end leaks and machine pressure losses. Because of variations in the charge, leading to different optimum bed heights on identical machines with identical strand speeds, it was decided to relate the results to sinter quality and completion of sintering. Taking ore + dust as 100%, the returns and coke breeze were 20 and 12 to 14% respectively. Charge moisture was 20 to 24%, size 0 to 20 mm and standard fuel consumption 118 to 125 kg/ton sinter. Ore composition (%) was 44.5 SiO<sub>2</sub>, 25 Fe<sub>2</sub>O<sub>3</sub>, 1.3 CaO, 9 MgO, 4.5 Al<sub>2</sub>O<sub>3</sub>; that of the sinter 45 to 50% SiO<sub>2</sub>, 17 to 23% Fe and 10 to

Card 1/3

MOGIL'NITSKIY, I.D., dotsent

Effect of external conditions on the electric power consumption of  
air blowers. Izv. vys. ucheb. zav.; energ. 6 no.7:112-115  
Jl '63. (MIRA 16:8)

1. Rybinskiy vecherniy tekhnologicheskii institut.  
(Metallurgical plants--Electric equipment)

MOGIL'NITSKI, I. D.

Novye malomoshchnye tikhokhodnye vetrodvigateli. (Vestn. Mash., 1950,  
no.1, p. 25-26)

New low-power slow-speed windmills.

DLC: TNL.VL

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library  
of Congress, 1953.

MOGIL'NITSKIY, I. D.

Cand. Tech. Sci.

Dissertation: "Investigation of regulations of wind motors in wind-electric installations." 18 May 49

Moscow Inst. for Mechanization and Electrification of Agriculture imeni

V. I. Molotov

**SO Vecheryaya Moskva  
Sum 71**

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6

MOGIL'NITSKIY, B. N.

DECEASED

Medicine

see ILC



**MOGIL'NITSKAYA, B.Z.**

Desensibilization effect of insulin in allergic occupational dermatitis.  
Vest. vener. No.3:18-20 May-June 50. (CML 19:4)

1. Of the All-Union Sanitary-Chemical Institute (Director -- Ya.G. Vol'finson), Skin Division (Head -- Prof. O.N.Podvysotskaya, Active Member of the Academy of Medical Sciences USSR).

MOGIL'NITSKAYA, B.

" Materials for the Study of the Effect of Various Groups of Complex Chemical Compounds on the Occurrence and Effect on increased Skin Reactivity (Allergy)" by B. Mogil'nitskaya, All-U Sci Res Sanit-Chem Inst (Director Ya. G. Vol'finzon; Chief Skin Dept. - Act Memb Acad Med Sci USSR Prof. O. N. Podvysotskaya) pp. 95-104

SO: Luchshiye Nauchnyye Raboty Aspirantov (Best Scientific Work of Aspirants) Submitted at Medical Higher Educational Institution and Sci Res Inst. Published by Medgiz, Moscow, 1951. Edited by Prof. A. G. Gukasyan. Armed Forces Med Lib WB 5 G 969L 1951

GABER, R.I.; GINDIN, I.A.; MOGIL'NIKOVA, T.T.; NEKLYUDOV, I.M.

Internal friction of iron hardened by programming. Fiz. met. i  
metalloved. 18 no.3:443-447 S '64. (MIRA 17:11)

1. Fiziko-tekhnicheskiy institut AN UkrSSR.

Internal friction and plastic ... S/126/62/013/005/014/031  
E073/E535

To improve the accuracy of relation (1), the intensity of the tangential stresses  $\tau_i$  is applied which, for a tube stressed by internal pressure ( $p = \alpha t$ ) and by a torque causing shear stresses  $\sigma_{12}$ , can be expressed by

$$\tau_i = \frac{\sqrt{2}}{3} \sqrt{A \alpha^2 t^2 + 3 \beta^2 \sin^2 \omega t + \sigma_0^2} \quad (2)$$

where

$$A = \frac{3}{4} \frac{r_{av}^2}{h^2} ; \quad (3)$$

$\sigma_0$  is the constant component of the tensile stresses occurring under the effect of the applied load. Analysis of this relation shows that the intensity of tangential stresses characterizes satisfactorily the plastic deformation in over-loaded micro-volumes. Recrystallization cannot be the cause of the observed effect of increasing stresses on the damping decrement, which decreases during repeated tests after short pauses. Very short (30 sec) pauses will not re-establish the initial properties of these regions for which at room temperature pauses of 15 min are required for lead and 40 min for tin. There are 4 figures.

ASSOCIATION: Fiziko-tekhnicheskii institut AN UkrSSR (Physico-technical Institute AS UkrSSR)  
SUBMITTED: May 22, 1961  
Card 2/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6  
S/126/62/013/005/014/031  
E073/E535

AUTHORS: Garber, R.I. and Mogil'nikova, T.T.

TITLE: Internal friction and plastic deformation of over-loaded micro-regions of a solid body. II

PERIODICAL: Fizika metallov i metallovedeniye, v.13, no.5, 1962, 735-737

TEXT: The effect of increasing stresses during repeated tests was studied on lead and tin at room and at liquid nitrogen temperatures. In earlier work (DAN SSSR, 1958, 118, No.3) the authors showed that application of additional, monotonously increasing, stresses in the case of elastic, freely damped, oscillations, which leads to an appreciable increase in the internal friction, will also lead to the damping decrement showing a specific dependence on the stress increase  $dp/dt = \alpha$ , the amplitude  $\beta$  and the frequency  $\nu$ . The rate of stress increase from which the damping decrement is saturated,  $\alpha_{cr}$ , can be expressed by the experimentally verified proportionality relation

$$\alpha_{cr} \sim \nu\beta$$

(1)

Card 1/2

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6

GARBER, R.I.; MOGIL'NIKOVA, T.T.

Determining the elasticity limit of real solids. Fiz. met. i  
metalloved. 13 no.2:314-316 F '62. (MIRA 15:3)

1. Fiziko-tehnicheskiy institut AN USSR.  
(Solids) (Elasticity)

## NAME I BOOK REFERENCE 207/505

Moscow. Institut stali

Rezhimnaya perelom i mekhanika i sploshnykh i sverkhsploshnykh deformatsiy v metalakh i sploshnykh i sverkhsploshnykh deformatsiyakh (Russian Phenomena in Metals and Alloys; Transactions of the Inter-Institute Conference) Moscow, Metallurgizdat, 1960. 326 p.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya SSSR and Moskovskiy Institut stali imeni I.V. Shpil'mana.

Ed. (with prep): B.M. Fishal'shteyn; Ed. of Publishing House: Ye.I. Levit; Tech. Ed.: A.I. Kuznetsov.

SYNOPSIS: This collection of articles is intended for personnel in scientific institutions and schools of higher education and for physical metallurgists and physicists specializing in metals. It may also be useful to students of these fields.

CONTENTS: The collection contains results of experimental and theoretical investigations carried out by schools of higher education and scientific research institutions in the field of the phenomena in metals and alloys. Several articles are devoted to the investigation of the internal-friction method of the decomposition of superaturated solid solutions. Also analyzed are the defects of the crystalline lattice, plastic deformations, high-temperature friction and temper brittleness. Problems of the relation between internal friction and the rate of diffusion are discussed. The investigation of powder-metal products, and the phenomena of creep and shrinkage are discussed. The collection also contains articles on the drying characteristics of materials, elastic after-effect, and the new also-detection method. No personalia are mentioned. References follow most articles. There are 566 references: 192 Soviet and 174 non-Soviet.

Polubnyy, S.O. [Leningradskiy politekhnicheskii institut (Leningrad Polytechnic Institute)]. Elastic Aftereffect of the Alloys Used for Springs 134

Porter, R.D. [Institut metallurgicheskikh i fizikal'nykh nauk SSSR (Institute of Metallurgy and Physics of Metals of the USSR)]. On the Theory of Elastic Aftereffect in Homogeneous Bodies 169

Rebinder, P.I., and V.A. Pavlov [Fiziko-khimiya cheknykh institutov AN SSSR (Physical-Chemical Institute of the Academy of Sciences USSR)]. Internal Friction and Plastic Deformation in Overstressed Microscopic of Rigid Bodies 176

Rebinder, P.I., and V.A. Pavlov [Institute of Physics of Metals of the Academy of Sciences USSR]. Internal Friction in Deformed  $\alpha$ -Solid Solutions of Aluminum with Magnesium 189

Rebinder, P.I., and V.A. Pavlov [Kemerovo Pedagogicheskii Institut. Effect of Plastic Deformation on Internal Friction of Ferrous Alloys 199

Rebinder, S.O. [Leningradskiy Polytechnic Institute]. Study of Defects in Metal Products and Samples by the Method of Measuring the Damping of Vibrations 202

Rebinder, V.A. [Institute of Physics of Metals of the Academy of Sciences USSR]. Analysis of the Defects in Crystal Lattice by Using the Internal Friction 227

Rebinder, S.O., and V.A. Pavlov [Institute of Physics of Metals of the Academy of Sciences USSR]. Dependence of the Internal Friction in Pure Nickel on the Temperature 234

Rebinder, S.O., and V.A. Pavlov [Institute of Science of Metals and Physics of Metals of the USSR]. Study of the Effect of the Intergranular Structure of Austenite on the Internal Friction and Creep 241

Rebinder, S.O., and V.A. Pavlov [Kemerovo Pedagogicheskii Institut] Recovery of the Internal Friction in Aluminum, Silver, and Platinum After the Removal of the Loading 251

Rebinder, V.S. [Kemerovo Pedagogicheskii Institut]. Internal Friction of Plastically Deformed Metals and Alloys at Elevated Temperatures 264

Rebinder, S.O., and V.S. Rebinder [Moscow Steel Institute]. Effect of Deformation on the Internal Friction of Commercial-Grade Iron 279

Rebinder, V.S. [Kiyevskiy gosudarstvennyy universitet (Kiyev State University)]. Analysis of the Maximum Internal Friction on Grain Boundaries in the Aluminum-Copper-Nickel Alloys 289

Cont. 2/4

Internal Friction and Plastic Deformation of Overstressed  
Micro-Regions in a Solid

20-3-17/59

PRESENTED: May 22, 1957, by G. V. Kurdyumov, Academician

SUBMITTED: May 9, 1957

AVAILABLE: Library of Congress

Card 4/4



Internal Friction and Plastic Deformation of Overstressed  
Micro-Regions in a Solid

20-3-17/59

the increase of the pressure in the tube was interrupted the decrement of damping immediately decreased to the initial value, and this independent of the fact, if pressure in the tube is present or not. The observed increase of the decrement of damping obviously depends on the velocity of pressure rise and also on the magnitude of the additional stress. The result of this work can be interpreted as follows: In the case of the elastic torsion-oscillations of the tube a part of the elastic energy is consumed for the plastic deformation of the overstressed micro-regions which occur on occasion of the increasing of the additional stresses at increasing pressure inside the tube. There are 2 figures and 5 references, 3 of which are Slavic.

ASSOCIATION: Physical Technical Institute of the AN USSR, Khar'kov  
(Khar'kovskiy fiziko-tekhnicheskii institut Akademii nauk  
SSSR) Pedagogical Institute imeni G. S. Skovoroda, Khar'kov  
(Khar'kovskiy pedagogicheskii institut imeni G. S.  
Skovorody)

Card 3/4

**Internal Friction and Plastic Deformation of Overstressed  
Micro-Regions in a Solid**

20-3-17/59

seem to divide the solid into micro-blocks. The plastic deformation of such a block must lead to a new distribution of the stresses in the micro-region, which surrounds this block, by which the plastic blocks can become plastically deformed. The authors here investigated the dependence of the logarithmic decrement of the damping of oscillations in lead on the additional (with advancing time increasing) stresses. The performance of these investigations is shortly described. Provisional investigations showed that the decrement of the damping in lead at room temperature does not depend on the amplitude of the oscillations. The same decrement does, at these conditions, not depend of those additional stresses either, which in a thin-walled tube are caused by the suspended stress and by the pressure of the compressed air inside the tube. The results of the measurements are illustrated in diagrams. The various curves, which are contained in this diagram, correspond with the oscillograms taken up at the various pressures. The difference between the initial values and the final values of the decrement decreases with the decrease of that pressure at which the oscillograms were taken. As soon as

Card 2/4

*MOGIL'NIKOVA T. T.*

**AUTHORS:** Garber, R. I., Mogil'nikova, T. T. 20-3-17/59

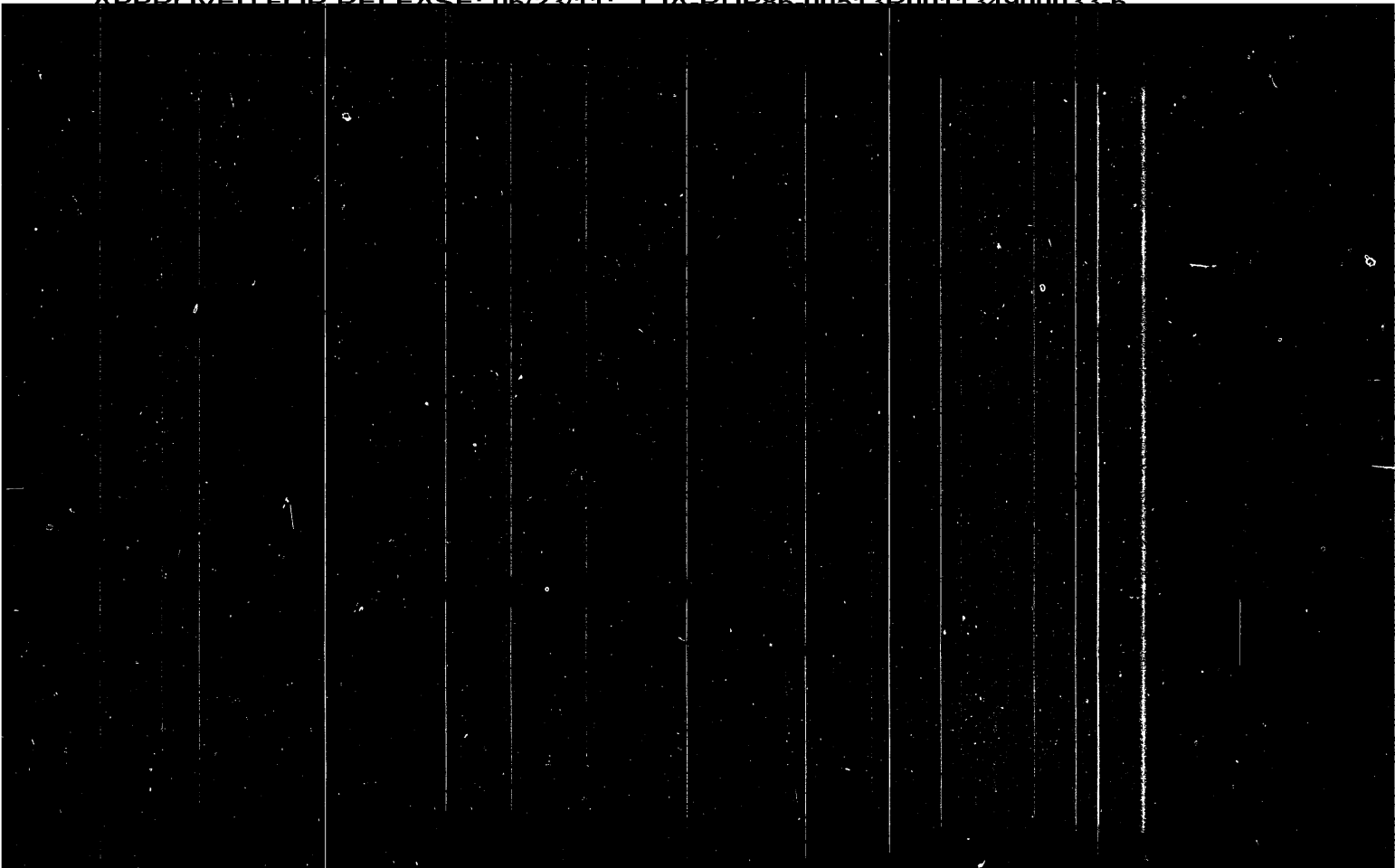
**TITLE:** Internal Friction and Plastic Deformation of Overstressed Micro-Regions in a Solid (Vnutrenneye treniye i plastiches-kaya deformatsiya perenapryazhennykh mikrooblastey tverdogo tela)

**PERIODICAL:** Doklady AN SSSR, 1958, Vol. 119, Nr 3, pp. 479-482 (USSR)

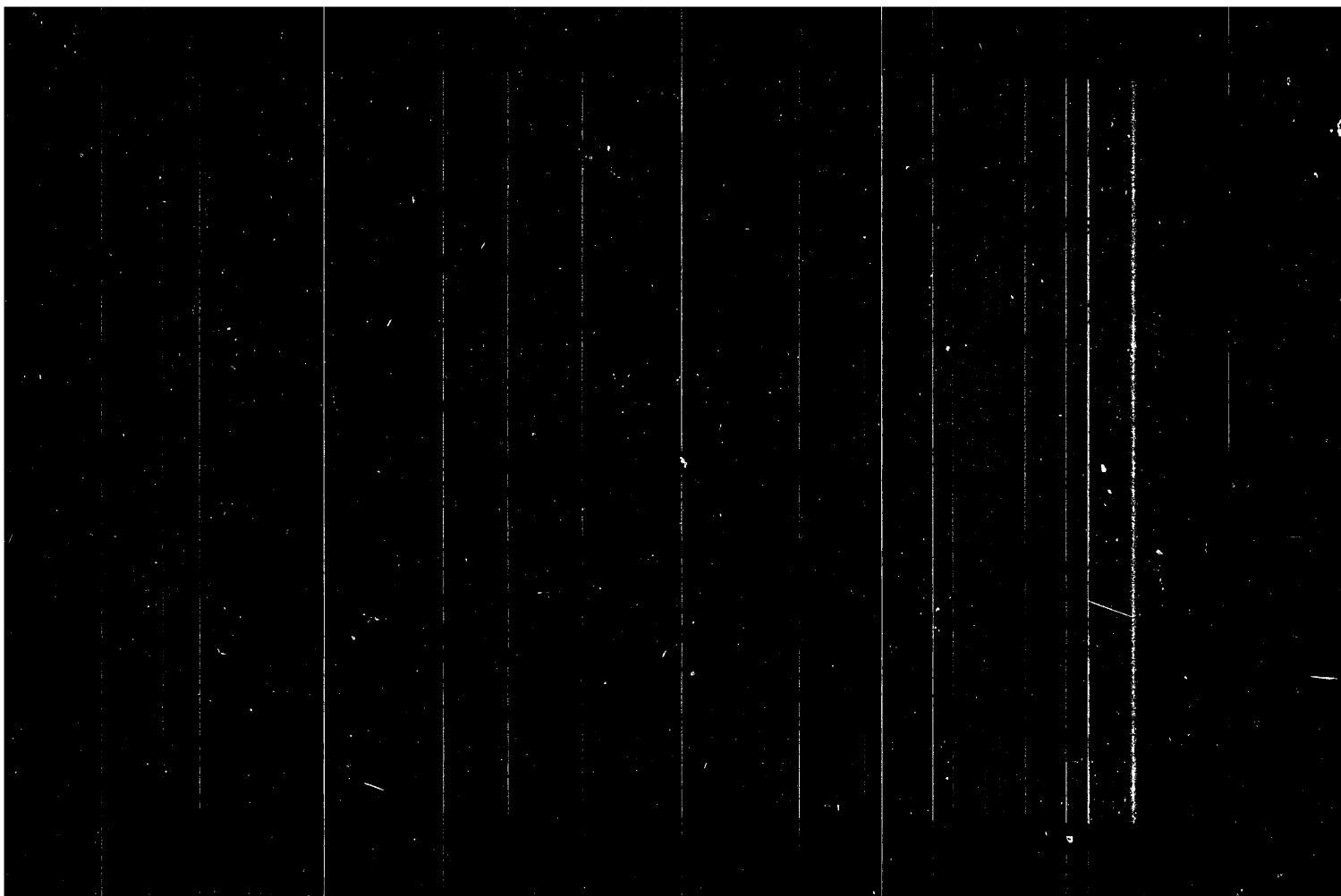
**ABSTRACT:** The increase of the viscosity with the amplitude of the oscillation must be attributed to the influence of the over stresses which are located in the micro-regions (mikroblast'). Here the following must be assumed: At every cycle of the change of the stress in such micro-regions a certain part of the elastic energy is consumed for the work, which has to be performed in the plastic deformation. But various basic ideas of the theory of the elastic - plastic deformation disagree with such an assumption. Obviously this theory, including the plasticity of the overstressed micro-regions, has to be examined more closely. The inhomogeneity of real solids becomes manifest in completely different investigations. Very small deformations

Card 1/4

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6

L 08822-67

ACC NR: AT6023095

Substituting (3) and (4) in expression defining  $\xi$  in terms of power,

$$\frac{1}{\xi} = 1 - \frac{2}{\pi A \left( c \operatorname{th} \frac{\pi^2}{2} + \operatorname{ch} \frac{\pi A}{2} \right)}, \quad \text{where} \quad c = \frac{\rho_1}{\rho_2} \quad (5)$$

In this relation the variables are denoted as follows:  $\vec{E}$  is the vector-potential of the electric field,  $\vec{B}$  is the vector of magnetic induction,  $\rho_1, \rho_2$  are specific electric resistances of the cylinder material,  $D$  is the cylinder diameter,  $A$  is the cylinder thickness,  $v$  is the velocity of the magnetic field's motion in relation to the cylinder,  $V$  is the volume of the active portion of the cylinder, and  $\omega$  is the angular frequency of the current in the cylinder. This expression can be simplified for known geometry of the rotor and stator. The specific cases when the rotor length is equal to that of the stator, and several other cases are separately treated and derived from the general expression (5). The following conclusions can be made on the basis of the analysis: 1) the influence of the face (boundary) parts on the value of the efficiency increases with the decreasing motor length; 2) the extension of the rotor beyond stator increases the power losses; 3) the coefficient  $1/\xi$  obtained from the expression (1) represents the mean value of the motor configuration; and 4) the mounting of superconductive rings on both faces of the cylinder makes  $\xi$  equal to 1. An appendix containing the derivation of (3) is included. Orig. art. has: 4 figures, 35 formulas.

SUB CODE: 09/

SUBM DATE: none/

ORIG REF: 006/

OTH REF: 002

Card 3/3 nst

L 08822-67

ACC NR: AT6023095

where  $\xi$  is the so-called "boundary coefficient". This coefficient may be found from the expression of Gibbs

$$\xi = 1 + \frac{2}{\pi\Lambda}, \quad (1)$$

where  $\Lambda = L/\tau$  is the relative motor length,  $L$  is the active portion of the total motor (stator) length, and  $\tau$  is the length of the pole section. This expression is valid for the motors in which the rotor extends beyond the stator by an infinitely long margin. For a practical case, where this extension is small

$$\xi = 1 + \frac{\sigma}{\Lambda}, \quad (2)$$

where  $\sigma$  is a function of the relation  $\beta = 2b/\tau$ , in which  $b$  is the length of the rotor protrusion on one side of the stator. A general expression for  $\xi$  is derived for a cylindrical rotor assuming that the axial (normal component of the magnetic field is uniform throughout the length of the sufficiently thin cylinder and that the inductive resistance of the rotor is neglected. Then

$$P_{1i} = \left[ 1 - \frac{2}{\pi\Lambda \left( \epsilon \operatorname{th} \frac{\pi\beta}{2} + \operatorname{cth} \frac{\pi\Lambda}{2} \right)} \right] \frac{\left( B_m \omega \frac{\tau}{\pi} \right)^2}{2\rho_1} \pi D L \Delta, \quad (3)$$

and

$$P_2 = p_2 V = \frac{\left( B_m \omega \frac{\tau}{\pi} \right)^2}{2\rho_1} \pi D L \Delta. \quad (4)$$

L 08822-67 EWT(m) DJ

ACC NR: AT6023095

SOURCE CODE: UR/3200/65/000/004/0169/0180

AUTHOR: Kutsevalov, V. M., Mogil'nikov, V.S.

ORG: none

TITLE: The calculation of the boundary effect in the inductive motors with distributed secondary parameters

SOURCE: AN LatSSR. Institut energetiki. Beskontaktnyye elektricheskiye mashiny, no. 4, 1965, 169-180

TOPIC TAGS: magnetic domain boundary, boundary value problem, electric motor, induction motor, induction pump, motor efficiency

ABSTRACT: The boundary effects in the inductive motors with distributed rotor parameters (motor with massive ferromagnetic rotor, motor with hollow cylinder rotor, cylindrical screen motor, inductive pump for liquid metals) are considered. In particular, the influence of face sections of the cylindrical rotors, and the rotors extending beyond the stator, on motor efficiency and power loss is analyzed. If the power in the rotor, without taking into account the influence of the rotor faces, is  $P_2$ , then the actual power including the boundary losses is

$$P_{2k} = \frac{1}{\xi} P_2.$$

Card 1/3



MOGIL'NIKOV, Vladimir Stepanovich, kand.tekhn.nauk, dotsent

Comparative characteristics of an asynchronous meter in three-phase and single-phase modes of operation. Izv. vys. ucheb. zav.; elektremekh. 6 no.8:1014-1017 '63. (MIRA 16:9)

MOGIL'NIKOV, V.S., kand. tekhn. nauk, dotsent (Svastopol')

Optimum value of magnetic permeability of a solid rotor of an  
asynchronous motor. Elektrichestvo no.8:42-46 Ag '63.  
(MIRA 16:10)

**Maximum Output of Energy of an Asynchronous Motor on  
Feeding the Network**

SOV/105-58-12-12/28

of the stator circuit, the network feeding energy is monotonously reduced. 2) By increasing the effective resistance in the stator circuit, the network feeding energy will at first increase then decrease. The effective resistance in the stator circuit corresponding to the maximum feeding energy is about twenty times higher than the effective resistance of the stator winding itself. 3) In the standard motors of low medium power, the maximum value of feeding energy is on an average equal to the kinetic energy of the motor rotor running at a synchronous rotational speed, independently of the energy of all rotating masses of the drive. There are 3 figures, 1 table and 1 Soviet reference.

SUBMITTED: September 16, 1957

Card 2/2

8(5)

AUTHOR: Mogil'nikov, V. S., Candidate of Technical Sciences SO7/105-58-12-12/28

TITLE: Maximum Output of Energy of an Asynchronous Motor on Feeding the Network (Maksimum energii, otdavayemoy asinkhronnym dvigatelem pri podpitke seti)

PERIODICAL: Elektrichestvo, 1958, Nr 12, pp 52 - 55 (USSR)

ABSTRACT: In this investigation the conditions are determined under which an asynchronous motor delivers a maximum of energy to the network, and a formula for determining this maximum output (Formula (12)) is derived. The results obtained permit the highest possible share of feeding energy to be quickly estimated in some cases with respect to the energy drawn from the network, thus avoiding complicated calculations of the electric system, the parameters of which are very uncertain in case of a short circuit. Summarizing it is stated that in case of a short circuit within the network, the asynchronous motors will act as generators for a short time, supplying energy to the network: 1) With an increase of the inductive reactance

Card 1/2

MOGIL'NIKOV, V.S., kandidat tekhnicheskikh nauk (Leningrad).

Resonance in asynchronous electric drives with a fluctuating load.  
Elektrichestvo no.8:22-26 Ag '56. (MLRA 9:10)  
(Electric driving) (Electric motors, Induction)

*Mogil'nikov, V.S.*

Subject : USSR/Electricity

AID P - 1030

Card 1/1 Pub. 27 - 7/23

Author : Mogil'nikov, V. S., Kand. of Tech. Sci., Leningrad

Title : Coasting of induction motors during a short circuiting in the network

Periodical : Elektrichestvo, 11, 44-49, N 1954

Abstract : The author presents formulas for the calculation of the changes in the speed of rotation of an induction motor which occur during a short circuiting or during a brief interruption in driving a machine. He includes in his formulas values accounting for the inertia of the driven machine and for the transient electromagnetic moments. Computed values are compared with experimental data. Eight diagrams, 4 Russian references (1947-1951).

Institution : None

Submitted : Je 28, 1954

**USSR/Electricity - Electromagnets, AC**      **May 52**

"Calculation of an Electromagnet With a Short-Circuited Turn and Constant Flux Linkage," Docent F. D. Mikhayev, Cand Tech Sci, V. S. Mogil'nikov, Engr, Leningrad

"Elektrichestvo" No 9, pp 3-7

Gives a method for calcg the av and min pull of an electromagnet with a short-circuited turn [loading coil] and const flux linkage. Analyzes dependency of these pulls on the relative value of the pole area shaded by the coil and the resistance of the coil for finite gaps. Submitted 23 Jan 51.

232147

Experience with the.....

S/132/60/000/011/001/002  
A054/A130

average gradient, to evaluate the obtained  $\eta_K$  values above the mineralization zone and to define the thickness of the overburden and the oxidized zones. The  $\eta_K$  value of vertical electrical sounding remains unchanged at 0.4% until the half-spacing  $A_0 = 15$  m. With an increase in spacing, the value  $\eta_K$  also increases which indicates the presence of primary sulfide minerals in the section. The maximum value for  $\eta_K : 3.5\%$  was obtained at a semi-spacing of  $A_0 = 500$  m, where  $\eta_K$  still had not reached its limit. According to the curve  $\eta_K$  of vertical electric sounding the total thickness of overburden and oxidized layers, where no electron-conductive minerals are present, can be assumed to be 30 m. The curve  $\eta_K$  indicates that from  $A_0 = 250$  m the shape of the curve is influenced by the higher conductivity of the oxidized zone and by some screening object. Figure 2 represents the survey of profile 50 by induced polarization at a distance of 700 m. It is pointed out, that the high values of  $\eta_K$  are connected with the presence of dispersed impregnated sulfides in lime stone. When moving away from the mineralization zone,  $\eta_K$  decreases from 3 to 2%. The tests proved that it is possible to reveal on the sections the presence of massive and impregnated minerals, and to determine the distribution of the impregnation of sulfides. There are 2 figures and 1 Soviet reference.

ASSOCIATIONS: VNII Geofizika, VITR, Uz.GITSGFP, Tsentral'naya geofizicheskaya partiya, (VNII of Geophysics, VITR, Uz.GITSGFP, Central Geophysical Party)

Card 4/5



Experience with the.....

S/132/60/000/011/001/002  
A054/A130

working with vertical electric sounding the spacing taken for AO was 500 m, when working with profiling, AB was 1000 m. The spacings were chosen according to the curve of vertical sounding, (Fig. 1). By taking a spacing of 1000 m, it was possible to register anomalies above the mineralized layers in the working area. With a generator voltage of 100 - 600 v and with 4 - 12 a in the feed line, a voltage ( $\Delta V_{tr}$ ) could be obtained in the receiving line which was not lower than some tens of millivolts. As receiving line a thin strip was used provided with a commutator, switching in turn one of the five pairs of non-polarizing receiving electrodes. Based on the calculated values of  $\Delta U_{ip}$  and  $\Delta V_{tr}$  and the known current intensity  $i$  in line AB, the following values have been determined:

$$\eta_K = \frac{\Delta U_{ip}}{\Delta V_{tr}} \quad 100\%$$

$$\rho_K = K \frac{\Delta V_{tr}}{i}$$

which were plotted in graphs according to the profiles or in vertical electric sounding curves. Figure 1 shows  $\eta_K$  and  $\rho_K$  curves obtained when working with the vertical electrical sounding of induced polarization, for determining (at picket 17, profile 50) the optimum length of line AB, for surveying according to the Card 3/5

Experience with the.....

S/132/60/000/011/001/002  
A054/A130

scripts tr (transmission) and ip (induced polarization) have been substituted for the original  $\eta p = pr = \text{propusk}$  and  $\beta \eta = vp = \text{vyzvannaya polarizatsiya}$ ). To increase the input voltage in the measuring-registering instrument, 3AA(EDA)-58 type auto-compensators are mounted which make measuring possible at any kind of earthing of the receiving electrodes. The sensitivity of the measuring channels is 1-1000 mv for the full scale of the oscillograph; the input resistance of the instrument is 2 megaohm, the error in measuring does not exceed 2%; there is no zero-creep at the auto-compensators. The principal measuring operations and the control of the generator are automatic. The equipment was tested in an anticlinal folding containing galenite, sphalerite, in some places also bornite, chalcopyrite, etc. The ores have an impregnated or cocarde texture or are found in massives. The sulfide mineralization is dispersed in nearly all tectonic zones. Some ore bodies are oxidized from the surface, the depth and extent of oxidation is not uniform. The tests with the induced polarization method were carried out in sections through the thickest parts of the ore layer, which were selected in such a way to make it possible to examine the effect of primary mineralization at a depth of 30 m, covered by a superstratum 15 - 20 m thick. The tests were carried out by vertical electrical sounding, following the VITR method. (Ref. 1. V. A. Komarov, L. M. Ioffe, M. V. Semenov: The method of induced polarization, ONTI VITR, publ. 20. 1959). When

Card 2/5

S/132/60/000/011/001/002  
A054/A130

AUTHORS: Alekseyev, A. M., Ioffe, L. M., Semenov, M. V., Mogil'nikov, V. I.,  
Morozov, N. V.

TITLE: Experience with the new  $\beta\eta$ (VP)-59 type electric testing equipment  
to be used in the induced polarization method

PERIODICAL: Razvedka i okhrana nedr, no. 11, 1960, 47 - 49

TEXT: The VNIIGeofizika Institute has designed in cooperation with the  
VIIR a new type of electric testing station, (VP-59) to be mainly used in pros-  
pecting electron-conductive (sulfide) impregnated ores by means of induced polari-  
zation, vertical electric sounding and dipole sounding. The station is mounted  
on two ГАЗ (GAZ)-69 type trucks with increased power for crossing heavy terrain  
and consists of a generator and a receiving unit. Current for the feed line in  
the generator equipment is supplied by a ПН(PN)-100 type generator (11.5 kw, nomi-  
nal voltage 460 v). The generator is driven by the engine of the truck via a  
special power take-off gear box. In the measuring instrument the difference of  
transmission potentials  $\Delta V_{tr}$  and induced polarization ( $\Delta V_{ip}$ ) are registered by  
an 3П0 (EPO)-7 type oscillograph on photogenic paper. (Abstractor's note: tran-

Card 1/5

1. The program headed by A. M. Tselikova, Tomsk Medical  
Institute (Tomsk Medical Institute);  
2. The program headed by A. M. Tselikova, Tomsk Medical Institute (Kafedra

... quantitative determinations in the blood serum and

DECLASSIFIED BY 6032 JAL/STW ON 04-11-2013

**Abstract** The purpose of this research analysis  
is study the serum and  
in acute glomerulonephritis.

at the beginning of clinical recovery

...the disease, the

normal level (less than 100) observed in 25 normal

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED  
DATE 08-19-2006 BY 60322 UCBAW

...in the concentration in the

...the ...  
...the ...

... level in the ...

[illegible][illegible]

REF: 001  
IR: 83-274-5

MOGIL'NIKOV, V.G.

Content of copper and iron and their quantitative correlation  
in the blood serum and cerebrospinal fluid in tick-borne encephalitis patients. Zhur. nevr. i psikh. 65 no.1:40-45 '65.  
(MIRA 18:2)

1. Kafedra infektsionnykh bolezney (zaveduyushchiy A.M. TSelishchev) i kafedra fiziki (zaveduyushchiy V.D. Gol'tsev)  
Tomskogo meditsinskogo instituta.

LYAPIN, D.P.; MOGIL'NIKOV, S.V.; PASTUSHKOV, M.T.; RUDENKO, P.F.

Mechanizing labor-consuming operations in cutting development openings. Ugol' 31 no.5:11-15 My '56. (MLRA 9:8)

1. Donetskii nauchno-issledovatel'skiy ugol'nyy institut.  
(Coal mining machinery)

MOGIL'NIKOV, S., inzhener; RUDENKO, P., inzhener.

Strut for holding the manipulator. Mast.ugl.5 no.4:22 Ap '56.  
(Fastenings) (MIRA 9:7)

MOGIL'NIKOV, S.; TANKHILIVICH, M.

Improved standard requirements prescribed for boring and blasting operations. Mast.ugl. 4 no.10:6-7 0 '55. (MLRA 9:1)

1.Nauchnye sotrudniki Donetskogo nauchno-issledovatel'skogo ugol'nogo instituta.  
(Donets Basin--Coal mines and mining) (Mining engineering)



MOGILNIKOV, S. F.

News in Preparatory Mine Workings. Minno Delo (Mining), #2:40:Feb 59

MOGIL'NIKOV, S.F.

LYAPIN, D.P.; IMAS, A.D.; MOGIL'NIKOV, S.V.; RUDOV, V.N.

New developments in conducting preparatory mine work. Ugol' 29 no.5:  
37-40 My '54. (MLRA 7:6)

1. DonUGI. (Coal mines and mining)

MIL'KIS, B.Ye.; MOGIL'NIKOV, L.P.; SAATOV, M.S.

Evaporation from the surface of the Uch-Kizil Reservoir. Vop.  
gidr. no.11:82-86 '63. (MIRA 17:6)

MOGIL'NIKOV, Igor' Vasil'yevich; KHAKIMOV, R., red.

[Construction of cattle barns in Uzbekistan] Uzbeki-  
stonda koramol fermasi binolari kurilishi. Tashkent,  
UzdaVNashr, 1964. 29 p. [In Uzbek]  
(MIRA 17:11)

MOGIL'NIKOV, I. V.

6833. Mogil'nikov, I. V. Rol' sovetskoy biologicheskoy nauki v razvitii shivotnovodstva. Tashkent, Ob'ye din. izd. "Kzyl Uzbekistan", "Pravda Vostoĸa" i "Uzbekistoni surkh", 1954 48 s. 20 sm. (besedy o nauke. No. 31-32). 45.782 eks. 80 k. - Na. uzbek. yaz. --(55-2002) 636

SO: Knizhnaya Letopis' No.6, 1955

MOGIL'NIKOV, I.M., inah.; FINK, M.M., inah.

Self-discharging timber truck. Mekh.i avtom.proizv. 16 no.8:  
~~23-24~~ Ag '62. (MIRA 15:9)  
(Lumber--Transportation)

1. 1000000

2. 1000000

3. The receiver is a transistor which has an inductive feedback. The receiver is designed to operate at 100 W power, the maximum non-linear audio distortion is 10% at 100 W power and drops to 7.2 V but still still work at 5.6 V working voltage. The dimensions of the receiver are 150 x 95 x 35 mm, its weight is 1.5 kg. The built-in magnetic antenna is mounted to the receiver. The loudspeaker is mounted under the top of the case. The receiver is also with a variable capacitor rotated through a 1:6 reduction gear. The overall complete circuit diagram of the receiver is shown, also the wiring diagram and transistor-amplifier details. Orig. art. Data: 4 figures and 1 table. [1955]

4. 1000000 / 1000000: none

5. 1000000

1. Subject: Novaya-2

SOURCE CODE: 118/0207/65/000/004/0036

2. Author: Novaya, A. (Engineer); Shalvay, I. (Engineer); Cherenkov, Ya. (Engineer);

3. Title: Novaya-2

4. Topic: transistorized radio receiver "Novaya-2"

5. Source: Radio, no. 4, 1965, 34-36

6. Topic Tags: radio receiver, transistorized circuit, circuit design, radio engineering

7. Abstract: The article gives an overall technical description of the "Novaya-2" radio receiver. It is first compared to the previous "Novaya" model which it equals in terms of performance and operating reliability. The "Novaya-2" is based on the super-heterodyne principle with a set of transistors and one crystal diode. It operates on battery supply and its frequency range extends over long waves and medium waves. The basic components of this receiver are a frequency converter, a two-stage intermediate-frequency amplifier, a sharp-cutting filter for adjacent-channel selectivity, a detector, automatic volume control and a two-stage low-frequency amplifier. Capacitors are used for synchronization and interstage coupling, except for the second stage of the I-F amplifier where negative feedback is effected through a resistance-capacitance circuit for the purpose of reducing non-linear distortions, and

8. Page: 1/2

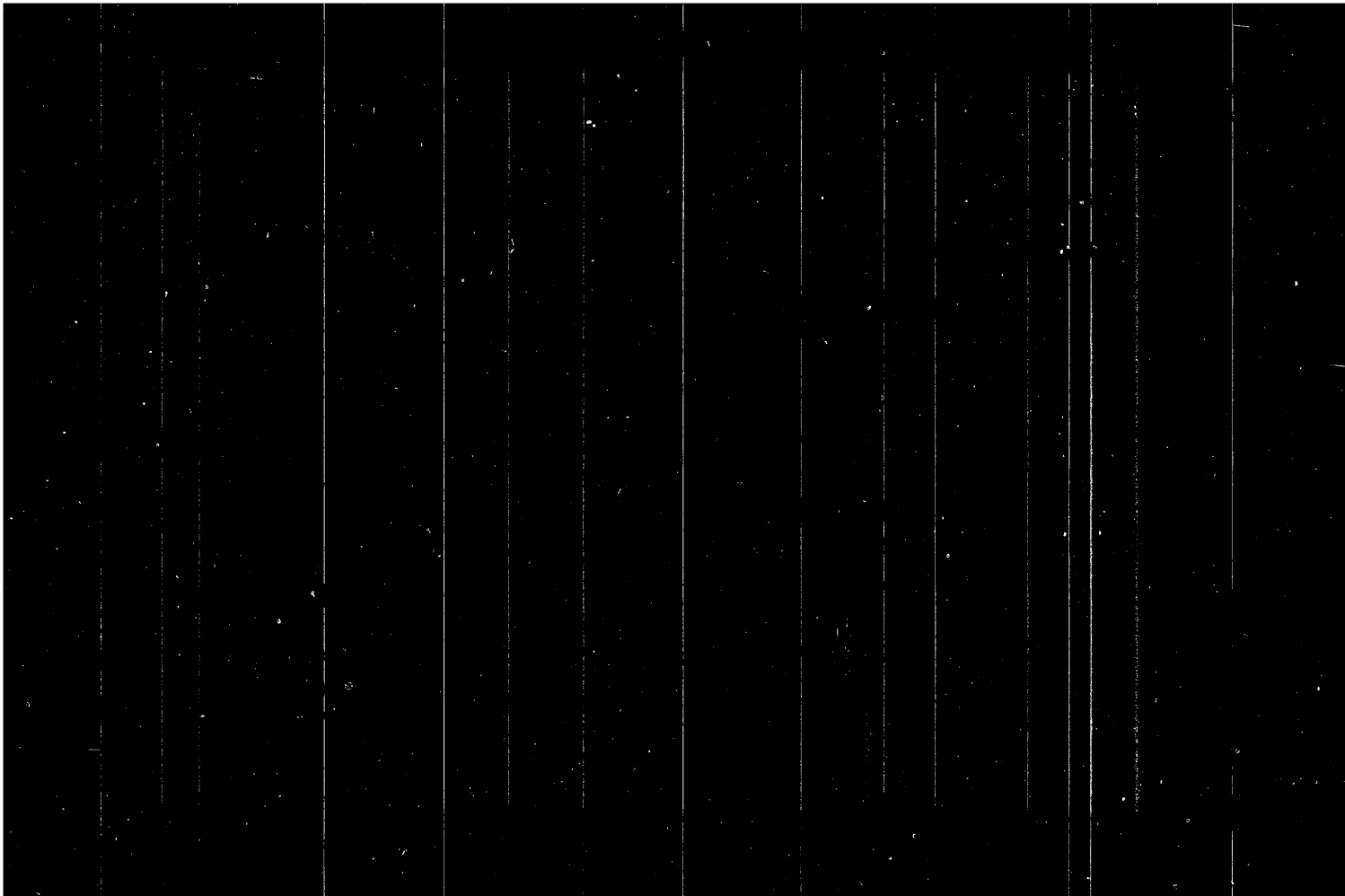
39  
B



LYAPIN, D.P., inzh.; KONDRASHEV, F.S.; MOGIL'NIKOV, F.S.; RUDENKO, P.F.

Results of industrial tests in the Donets Basin of the new  
technology of mining steeply dipping seams with the drilling  
and blasting method without the presence of men in the stope.  
Sbor.DonUGI no.20:39-58 '61. (MIRA 15:6)  
(Donets Basin--Coal mines and mining) (Blasting)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6

POI/39-26-6-2/9

The Possibility of Establishing a Self-Production Basis of Heavy Forgings

"Bochumer Verein", is decreasing the hydrogen contents of steel down to 2-4 cm<sup>3</sup>/100 g. Besides avoiding flakes, this method has the following advantages: 1) Decreasing of oxygen contents by 35% and acetylene by 15%; 2) Elimination of non-metal components as SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, MnO by about 1/3 of original contents; 3) Improvement of mechanical attributes of steel (elasticity); 4) Decrease of material losses down to 1%. Possible forgings are shown, which will be produced by the foundry "Warszawa", provided the vacuum method is applied. There are approximately 15,000 tons processed per year at an estimated material loss of 12%. When applying the new method, the percentage of losses will decrease to 2%, which would be a saving of 1.3 million dollars. Installation of facilities to process under the new method would cost about 200,000 dollars, so, that it would be amortized within one year. Even

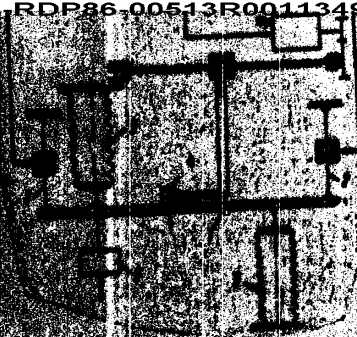
Card 2/3

ALOV, A.A., doktor tekhn.nauk, prof.; MOGIL'NER, M.N., inzh.

Highly efficient electrodes for the welding of low-carbon steel.  
Svar. proizv. no.10:31-33 0 '63. (MIRA 16:11)

1. Moskovskiy aviatsionnyy tekhnologicheskiy institut.

1. The circuit diagram  
shows the following components:  
a. A power source (battery)  
b. A switch  
c. A lamp  
d. A variable resistor  
e. A fixed resistor



2. The circuit is designed to demonstrate the effect of the law of conservation of energy so that one in-  
crease in the resistance of the circuit will decrease the  
current flowing through the circuit.

3. The circuit is designed to demonstrate the effect of the law of conservation of energy so that one in-  
crease in the resistance of the circuit will decrease the  
current flowing through the circuit.



57 769/62/000/007/033/149  
D228/D307

... meteorologic ...  
wind direction for 16 points of the compass with a precision of + 1 point; the air temperature from +35 to -15° with a precision of + 1°; the relative humidity from 30 to 98% with an error of + 7%; and the water temperature from +25 to -0.5° with a precision of + 0.3°. These data are transmitted by radio in the form of combinations of telegraphic code letters. Data about the meteorologic elements are coded by means of step-by-step switches. The radio-transmission system works on short waves from 90 to 105 m. The station's frequency is quartz stabilized. The transmitter's power amounts to 10 w. The station's power is supplied from storage batteries with a voltage of 27 v. [Abstracter's note: Complete translation.]

Card 2/2

3,5800

40229

S/169/62/000/007/083/149  
D228/D307

**AUTHORS:** Mogil'ner, I. N. and Shevchenko, F. N.

**TITLE:** Automatic radiometeorologic station for reservoirs  
(APM-52 (ARIV-52))

**PERIODICAL:** Referativnyy zhurnal, Geofizika, no. 7, 1962, 6-7, abstract 7B35 (Tr. N.-i. in-ta gidrometeorol. priborostr., no. 7, 1959, 36-51)

**TEXT:** The ARIV-52 is an automatic device for measuring and transmitting by radio for a distance of up to 100 km data about the wind's average velocity and direction, the air's temperature and humidity, and the water's temperature. The station works without supervision for the whole navigation season in the reservoir. Data on meteorologic elements can be transmitted both hourly and every 6 hours. If the wind velocity becomes hazardous for navigation, however, the station transfers to a system in which it is switched on every hour. During its operation the station measures: the wind velocity in the range from 2 to 40 m/sec with a precision of  $\pm 1$  m/sec; the

Card 1/2



MOGIL'NER, A. S.

"The Permeability and Stability of Capillaries in Acute Parenchymatous Hepatitis. Sbornik Nauchnykh Trudov Kirgizskogo Gosudarstvennogo Meditsinskogo Instituta (Collection of Scientific Works of the Kirgiz State Medical Institute), Frunze, Vol 7, 1951, pp 185-189.

ACC NR: AP6013488

trons, multiplied by a constant. Thus no special measurement of the background noise is required. The generator of the background sequence, described in some detail, is based upon numerical techniques using the code shift register with linear constraints. It generates  $+1$  and  $-1$  sequences of random duration with periods of e.g.  $(2^d - 1)$  where  $d$  is an integer as large as 34. A statistical analysis of the method's precision is given. An experimental verification of the method was conducted on a nuclear heat generator at zero power which had an approximately Maxwell neutron spectrum. The correlation method was compared with the classical one. The correlation method was better than the classical one not only at high background noise, but also near the spectrum maxima. Authors thank S.I. Chubarov and L.A. Matalin for a discussion of results and valuable comments. Orig. art. has: 7 figures and 24 formulas.

SUB CODE: 20, ~~10000~~ SUBM DATE: 24Jun65 ORIG REF: 002 OTH REF: 006

Card 2/2

ACC NR: AP6013488

UR/012C/66/000/002/0022/0027

AUTHOR: Mogil'ner, A.I.; Sal'nikov, O.A.; Timokhin, L. A.

ORG: None

TITLE: A correlation method of energy spectra measurement of nuclear particles by their fly-by time

SOURCE: Pribery i tekhnika eksperimenta, no. 2, 1966, 22-27

TOPIC TAGS: neutron, neutron beam, neutron energy *distribution*, ~~neutron spectrum~~, ~~study~~, ~~digital random sequence generator~~, ~~spectrum measurement~~, ~~correlation~~

Abstract: This paper proposes and describes a correlation method for the measurement of the energy spectrum of neutrons. A new method was needed because of some basic drawbacks of the classical method, which causes a conflict between the spectroscopy resolving and light-gathering power. In the approach to the new method, the spectroscopy is considered as a linear system with a modulated neutron beam input and a velocity-of-counting detector output. On this basis, it is shown that by using an optimum pseudo-random digital modulation sequence, with its autocorrelation sequence approaching that of a white noise, cycled at a sufficiently slow repetition rate, the measurement of the crosscorrelation function between the velocity of counting (output) and the modulating signal produces the impulse response of the spectrometer. This impulse response is, however, approximately equal to the desired normalized time spectrum of the neu-

Card 1/2

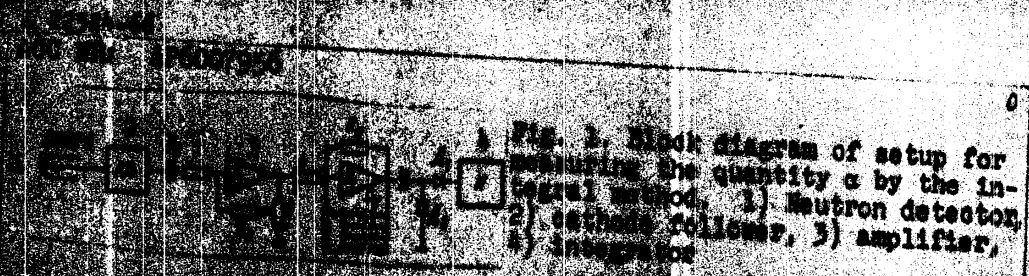
UDC: 539.121.64

1. SUMMARY

REF ID: A6007036

0  
 static stability of the measurements as a result of broadening the  
 band of measured frequencies. A shortcoming of the method is the  
 requirement that the main measuring channel have a uniform frequency  
 characteristic in a range from fractions of a cycle to several kcs.  
 and that the 2 figures and 7 formulas.

2. CONCLUSIONS  
 SUMMARY: 14 Jul 65 / ORIG REF: 001 / OTH REF: 005



The results of the measurements made with a broad-band filter with variable bandwidth. The theory of the method is briefly described, and the results of measurements made with a uranium-beryllium assembly reported. The experimental setup (Fig. 1) was designed for maximum sensitivity and accuracy. The measurements were made at a subcriticality  $\beta = 0.01$ . The resultant value of  $\alpha$ , referred to the criticality  $\beta = 0$ , was  $\alpha_c = 150 \pm 9 \text{ sec}^{-1}$ , compared with the value  $\alpha_c = 140 \pm 10 \text{ sec}^{-1}$  obtained for the same system by the frequency method. The advantages of the integral method are simplicity of the experimental setup from the point of view of assembling the experimental setup from readily available elements, the higher sensitivity and

30  
 B  
 00000000: 00/000/00/000/000/0157/0159  
 Krivov, G. P.  
 Journal of measuring the quantity  $\beta_{eff}/\lambda$   
 v. 20, no. 2, 1966, 197-199  
 neutron energy distribution, nuclear  
 multiplication factor, prompt neutron  
 The article describes a method for determining the quantity  
 $\beta_{eff} = [1 - k_{eff}(1 - \beta_{eff})] / \lambda$   
 where  $k_{eff}$  is the effective multiplication coefficient,  $\beta_{eff}$   
 is the fraction of delayed neutrons, and  $\lambda$  the lifetime of the  
 prompt neutrons. The method (called integral) is based on measuring  
 the variations of the ionization-chamber current  
 000: 001.000.510

and disadvantages. These methods are briefly presented as differential equations on which they are based are discussed and it is deduced from a comparison of the two types of methods that each offers several advantages. The authors thank S. A. Khavryuzov and G. I. Kharin for participating in the work.

The author has proposed three formulas, and 1

INSTR: 1432165/ ORIG REF: 003/ OTH REF: 015

[illegible]



MOGIL'NER, A. I.; ZOLOTUKHIN, V. G.

"Space-time correlation relations in multiplying systems."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva,  
31 Aug-9 Sep 64.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6

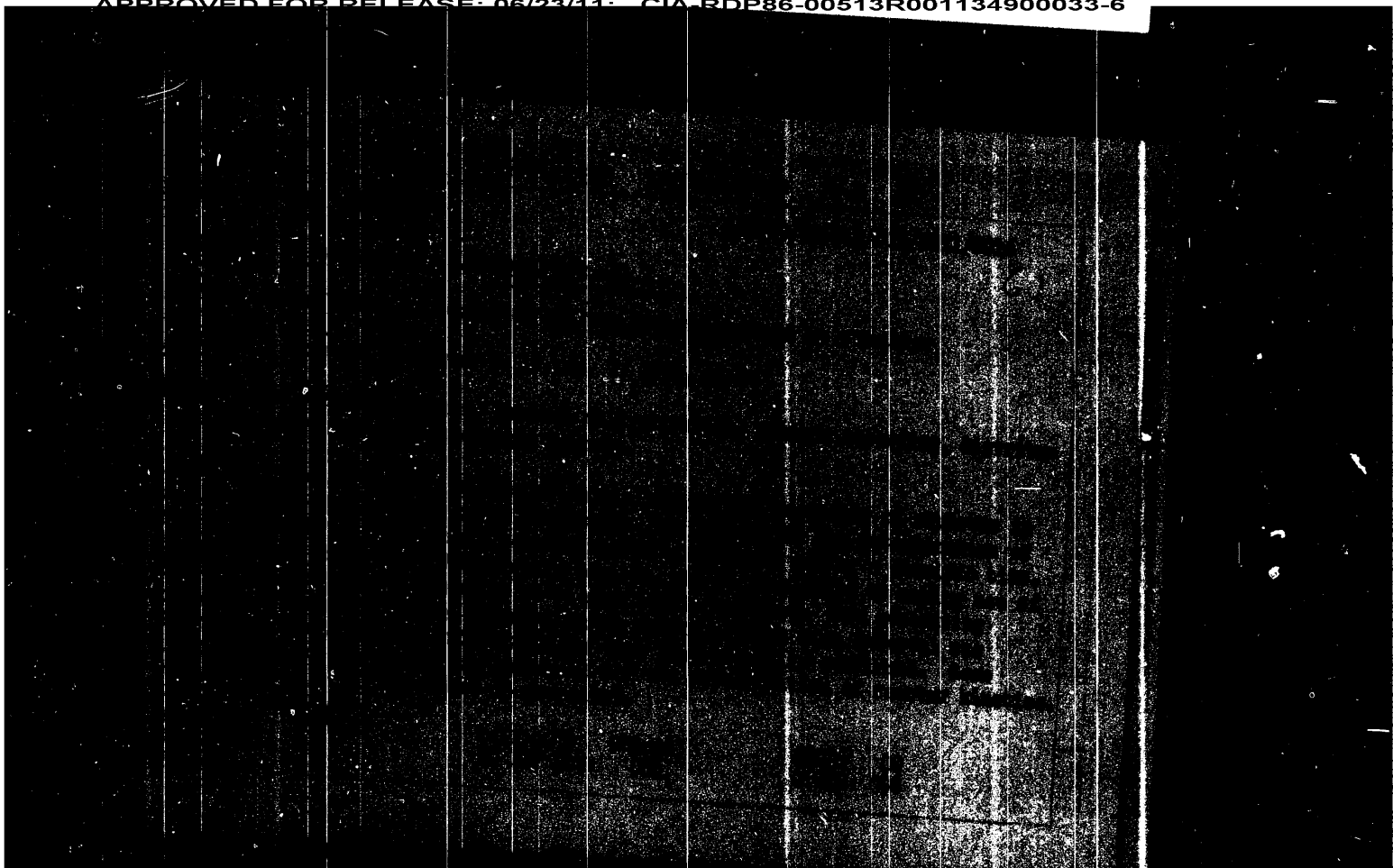
MOGIL'NER, A.I.

Second International Congress on Automatic Control. Atom energ.  
16 no.3:278-279 Mr '64. (MIRA 17:3)

ZOLOTUKHIN, V.G.; MOGIL'NER, A.I.

Distribution of the number of recordings by a neutron detector placed  
in a reactor. Atom. energ. 15 no.1:11-16 J1 '63. (MIRA 16:8)  
(Nuclear counters) (Distribution (Probability theory))

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6



22610

Distribution of...

S/089/61/010/004/013/027  
B102/B205

from an evaluation of Table 1 are contained in Table 2. There are 2 tables and 6 references: 4 Soviet-bloc and 2 non-Soviet-bloc. The two references to English-language publications read as follows: J. Orndorf. Nucl. Sci. and Engng, 2, 450 (1957); J. Bengston et al. Vortrag No. 1783 (USA) auf der Zweiten Genfer Atomkonferenz (1958).

SUBMITTED: August 25, 1960

Legend to Tables 1 and 2: 1) Experiment 1; 2) experiment 2; 3) selection a; 4) selection b;  $p_i$  - probability of  $i$  counts per interval ( $i=1..6$ ),  $p_7$  - probability of seven or more counts;  $v_i$  - actually observed number of intervals. The following relations hold for  $\bar{n}$  and  $\bar{v}$ :

$$\frac{\partial \chi^2}{\partial \bar{n}} = 0; \chi^2 = \sum_0 \frac{(v_i - N p_i)^2}{N p_i}; P = P(\chi^2 > \chi^2_{\min}) \text{ is the probability}$$

that  $\chi^2 > \chi^2_{\min} \text{ (} \alpha^2 = \chi^2_{\min} \text{)}.$

Card 4/6

Receiver power are obtained by measuring  $\psi$ . According to the Feynman-Alpha method which is analogous to that of V. Gol'danskiy and M. Podgoretskiy,  $\bar{n}$  and  $\bar{n}^2$  are measured directly. According to the Feynman-Alpha method, the statistical error of the parameter  $\alpha$  is found to be

$$N \left( \frac{\delta \psi}{\psi} \right)^2 = \frac{(1+\psi)[1+2(1+\psi)(\bar{n}+\psi)]}{\bar{n} \psi^2},$$

and according to the  $p_0$  method, it is  $\theta + \frac{e^x - 1}{x} - 2$

$$N \left( \frac{\delta \psi}{\psi} \right)^2 = \frac{1}{(1 - 1/\theta)^2} \frac{1}{x},$$

where  $x = \bar{n} Q$ ;  $\theta = Q(\psi)(1+\psi)$ ;  $N$  is the total number of time intervals,  $p_0$  the probability of zero counts per interval;  $Q = \frac{1}{\bar{n}} \ln \frac{1}{p_0} = \frac{\ln(1+\psi)}{\psi}$ . The results obtained by application of the  $\chi^2$  criterion to the negative binomial distribution are given in Table 1, and the parameters obtained

Card 3/6

22610

S/089/61/010/004/013/027  
B102/B205

Distribution of...

and  $\bar{n}$  the mean number of counts in the interval.  $\psi$  and the dispersion of the number of records are interrelated by  $\overline{n^2} - \bar{n}^2 = \bar{n}(1 + \psi)$ . Thus, Poisson's law is a limit for  $\psi \rightarrow 0$ . In order to verify (1) experimentally, the pulses of an CHM-5 (SNM-5) proportional counter placed in a reactor were recorded on the film of a loop oscilloscope together with time markings and subsequently counted visually. The  $\chi^2$  criterion was applied to the results of two experiments and two selections each. For three selections, the agreement between the experimental results and the distribution law (1) was found to be good, whereas a deviation occurred in 26 (of. Table), which is related to the small number of intervals with three counts. The "composed selection" of all 1672 intervals has also shown good agreement with (1). The dispersion of the number of counts for a stationary, sub-critical reactor can also be expressed by

$$\overline{n^2} - \bar{n}^2 = \bar{n}(1 + \psi), \quad \psi = \frac{\lambda \nu (\nu - 1) K_p^2}{(1 - K_p)^2 \bar{n}^2} \left( 1 - \frac{1 - e^{-\alpha t}}{\alpha t} \right),$$

where  $K_p$  is the prompt-neutron multiplication factor;  $\alpha = (1 - K_p)/l$ ;  $l$  is

Card 2/6

26.2263  
26.2244

S/089/61/010/004/013/027  
B102/B205

AUTHORS: Zolotukhin, V. G., Mogil'ner, A. I.

TITLE: Distribution of the number of counts of a neutron detector placed in a reactor

PERIODICAL: Atomnaya energiya, v. 10, no. 4, 1961, 379-381

TEXT: The distribution of the number of counts of a neutron detector placed in a stationary sub-critical reactor deviates from Poisson's law on account of the occurrence of reaction chains. In each interval of time, the mean number of counts depends on that of the preceding interval and is unevenly distributed. It may be assumed in this case that the actual distribution of the number of records can be described by a negative binomial distribution whose generating function is given by

$$(z) = p_0 + p_1 z + p_2 z^2 + \dots = [1 - \psi(z-1)]^{-\bar{n}/\psi} \quad (1),$$

where  $p_k = \frac{1}{k!} \left. \frac{d^k \eta(z)}{dz^k} \right|_{z=0}$  is the probability of k counts in a given interval,

Card 1/6



Measuring the ...

22609  
S/089/61/010/004/012/027  
B102/B212

the timing, and the length of the interval by calibration. For each of the four interval lengths  $t$  (4.65, 11.0, 21.0, and 61.0  $\mu\text{sec}$ ) the value of  $\psi$  can be determined from  $\bar{n}$  and  $P_0$ . In order to determine  $\alpha$  and  $Z$ , four values of  $\psi$  are treated by the method of least squares. For  $(1-k_{\text{eff}})/\beta_{\text{eff}} c/m$ ,  $\alpha_0 = \beta_{\text{eff}}/1$  one obtains  $\alpha = \alpha_0(1 + c/m)$ , where  $m$  denotes the counting rate;  $m$  is given by  $m = F\varepsilon$ , where  $F$  denotes the fission rate, and  $\varepsilon$  the efficiency of the detector; the latter is determined from the relation

$$r = z(\alpha/\alpha_0)^2 = \frac{\varepsilon v(\psi - 1)}{\bar{v}^2 \beta_{\text{eff}}^2}; \quad \varepsilon = 0.616 \cdot 10^{-4} \text{ r.} \quad \text{Fig. 3 shows } \alpha = f(1/m) \text{ for}$$

three test series ( $\beta_{\text{eff}} = 0.007$ ,  $l = (0.82 \pm 0.025) \cdot 10^{-4}$  sec (mean lifetime of prompt neutrons in the reactor)). The result agrees well with that obtained from the two-group approximation. The authors thank A. I. Leypunskiy, V. V. Orlov, G. I. Marchuk, and V. A. Kuznetsov for their interest and discussions, and V. V. Sapozhnikov and A. P. Tarasov for assistance in experiments. There are 3 figures and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Ref. 3: C. E. Cohn. Nucl. Sci. and Engng. 5, 331 (1959).

Card 3/5

was located. The preamplifier having four silicon triodes of type CHM-5 amplifier ( $R_H = 560$  ohms) were fed to a three-stage amplifier with silicon triodes. The total signal amplification was  $10^4$ . Then, the signal reached a scaler of type RC-64 (PS-64) and the probability P-element via a standard discriminator. Two different signals control the probability P-element, i.e., signals from the pulse detector and those from the timer. The timer consisted of a simple quartz generator (60 kc) with a 6X4 (6Zh4) tube. The probability P-element illustrated in Fig. 1 consists of a trigger having two stable states, and is controlled by pulses of negative polarity. After the signal of the timer is sent, the right triode will be blocked and the left one will be open. The pulses from the detector, which are fed to input no. 1 (A), changes the state of the triodes only one time during one interval, and send one pulse to the P-channel of the scaler. The initial or final pulse of an interval re-establishes the initial state of the triodes in the P-element and prepares it for the "reception" of the detector pulse in the next interval. Therefore, the number of counts in the channel is equal to the number of intervals where at least one pulse has been received from the detector. The total number of intervals is determined by

Card 2/5

AUTHORS:

Mogil'ner, A. I., et al.

TITLE:

Measuring the kinetic characteristics of a reactor by the statistical P-method.

PERIODICAL: Atomnaya energiya, v. 10, no. 4, 1961, 377-379

TEXT: In tests conducted with a thermal subcritical arrangement having  $U^{235}$  enriched to 75% and a moderator of hydrogen, the mean lifetime of prompt neutrons has been measured, and also the constant has been determined, which establishes the relation between the neutron-counting rate of the detector and  $k_{eff}$ , and also the absolute level of the steady output. The measurements were based on the  $P_0$ -method described by the authors in Ref. 1 (Atomnaya energiya, 10, vyp. 4, 279 (1961)) where all quantities used here are defined, and on the relations

$$\psi(\alpha t) = Z\varphi(\alpha t); \quad Z = \frac{\alpha v (v-1) K_p}{(1-K_p)^2 v^2}; \quad (A).$$

$$\varphi(\alpha t) = 1 - \frac{1 - e^{-\alpha t}}{\alpha t}.$$

Card 1/5

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6  
report submitted for the IAEA Seminar on the Physics of Fast and  
Intermediate Reactors, Vienna, 3-11 Aug 1961.

MOGILNER, A. I., PROKHOROV, V. A., STEKLOVSKIY, V. P., CHERNOV, L. A.  
LEYBUNSKIY, A. I., KUZENTSOV, V. A. AND ARTYUKHOV, G. Y.

"Experimental studies of some of the physical features of  
Beryllium-moderated intermediate reactors."

Report submitted for the IAEA Seminar on the Physics of Fast and Intermediate  
Reactors, Vienna, 3-11 Aug 1961.

Acad. Sci. USSR Moscow

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6

Analysis of clinical and pathomorphological materials on multiple sclerosis from 1946 to 1957. Sber. trud. Kursk. gos. med. inst. no.13:258-262 '58. (MIRA 14:3)

1. Is kliniki nervnykh bolezney (sav. - prof. N.I.Golik) Kurskogo gosudarstvennogo meditsinskogo instituta. (MULTIPLE SCLEROSIS)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6  
compressed air. Otm.tekh.opyt. [MIP] no.26:31-32 158.  
(MIRA 11:11)

(Tanning)

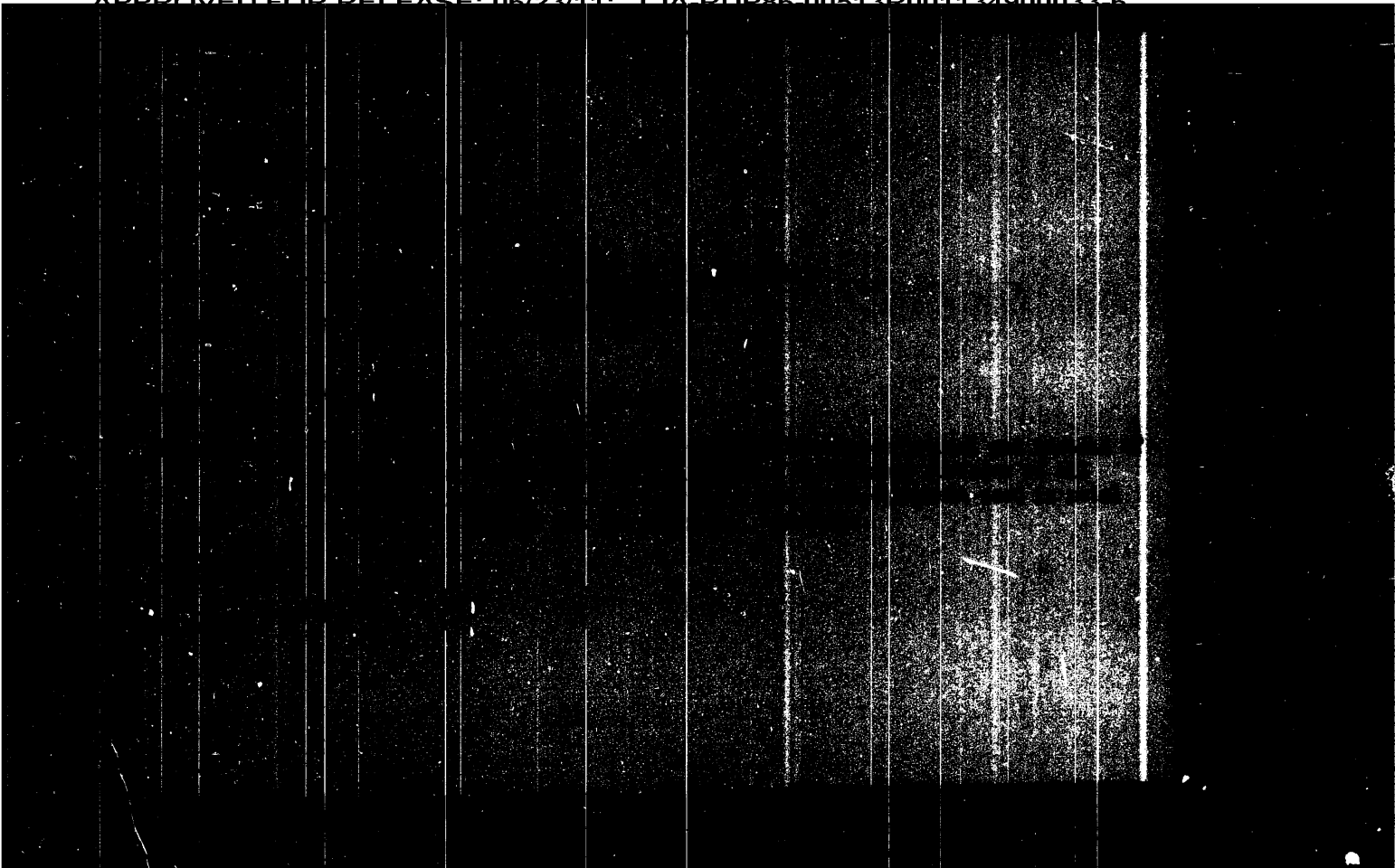
APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6

MOGILKO, V.K.; MIRNYI, Ya.M.

Artificial lowering of pressure water levels. Ogneupory 18 no.2:  
427-431 '53. (MIRA 11:10)  
(Mine drainage) (Fire clay)



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6



MOGILKO, P.F., glavnyy mekhanik.

Unified system of planned periodic repairs. Vest. mash. 33 no.12:  
93-94 D '53. (MLRA 6:12)  
(Machine-shop practice--Repairing)

~~MOGLIKO, P.~~

Establishing norms for periodic work. Avt.transp. 43  
no.11:37-39 N '65. (MIRA 18:12)

MOGILKO, N.V.

MOGILKO, N.V., insh.

Develop and apply Russian scientific achievements. Rech.transp.  
16 no.12:27-29.D '57. (WIRA 11:1)  
(Inland water transportation)

**NOGILKO, N.V., inzhener.**

**Method of deepening and straightening river beds by afforestation  
of their banks. Rech.transp. 14 no.10:22-27 0 '55. (MIRA 9:1)  
(River--Regulation) (Afforestation)**

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6  
Effect of shelterbelts on the formation of channels. Les. khos. no. 5, 1952

9. Monthly List of Russian Accessions, Library of Congress, August 1953<sup>2</sup> Unclassified.

NOGILKO, N. V.

Bol'shoi Dnepr i ego pervye ocheredi. [Greater Dnieper and its first stages (of construction).] (Vodnyi transport, 1934, no. 2, p. 18-23; map).  
DLC: HE561.R8

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

MOGILKO, L., ekonomist

Establishing norms for warehouse work. Sots. trud 7 no.9:  
113-117 S '62. (MIRA 15:9)  
(Warehouses) (Production standards)



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6

Молотов, Г. П. Опыты экономики строительства; сборник статей. Молотов,  
Молотовское книжное изд-во, 1957. 222 с.  
(Construction industry) (MLRA 10:9)

APPROVED FOR RELEASE: 06/23/11; CIA-RDP86-00513R001134900033-6  
red.isd-va; BOLDYREVA, Z.A., tekhn.red.

[Standard cross sections of mine workings] Tipovye sechenia gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.isd-vo lit-ry po gornomu delu. Vol.2. [Cross section of workings lined with concrete and artificial stone, for 1-ton cars] Sechenia vyrabotok, zakreplennykh betonom i iskusstvennym kamnem, dlia 1-tonnykh vagonetok. 1960. 459 p. (MIRA 13:11)

1. Moscow. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.  
(Mining engineering)

RELEASE: 06/23/11 CIA-RDP86-00513R00113490003  
P.A.; TYUTYUNIK, Ya.I.; KEMEL'NITSKIY, L.Ya.; BONDAR', V.I.; KRIVTSOV,  
A.T.; LOKSHIN, V.D.; SOFIYENKO, N.P. RABINKOVA, L.K., red.izd-va;  
BOLDYREVA, Z.A., tekhn.red.

[Types of mine cross section] Tipovye sечenіia gornыkh vyrabotok. Moskva, Gos.nauchno-tekhn.isd-vo lit-ry po gornomu delu. Vol.4.  
[Cross section of mines supported by a sectional reinforced-concrete lining of URP-II panels for 1-, 2- and 3-ton railroad cars] Sечenіia vyrabotok, zakreplennykh sbornoі zhelezobetonoі krep'іu iz plit URP-II, dlia 1-, 2- i 3-tonnykh vagonetok. 1960. 278 p.

(MIRA 13:1.2)

1. Khar'kov. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.  
(Mine timbering)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6  
plan. Sakh.prom.30 no.6:12-13 Ja '56. (MIRA 9:9)

1.Krasnosvesdinskiy sakharo-rafinadnyy saved.  
(Sugar industry)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6  
~~Creative cooperation. Sakn. prom. 29 no. 8. 55. (MIRA 9:2)~~

1. Krasnoyarskiy refinadnyy saved.  
(Sugar industry)

APPROVED FOR RELEASE: 06/23/11; CIA-RDP86-00513R001134900033-6

Sakh.prom. 29 no.2:31-33 '55.

(MLA 8:6)

1. Krasnosvesdinskiy rafinadnyy zavod.  
(Sugar industry --Equipment and supplies)

MOBILE, A.M.

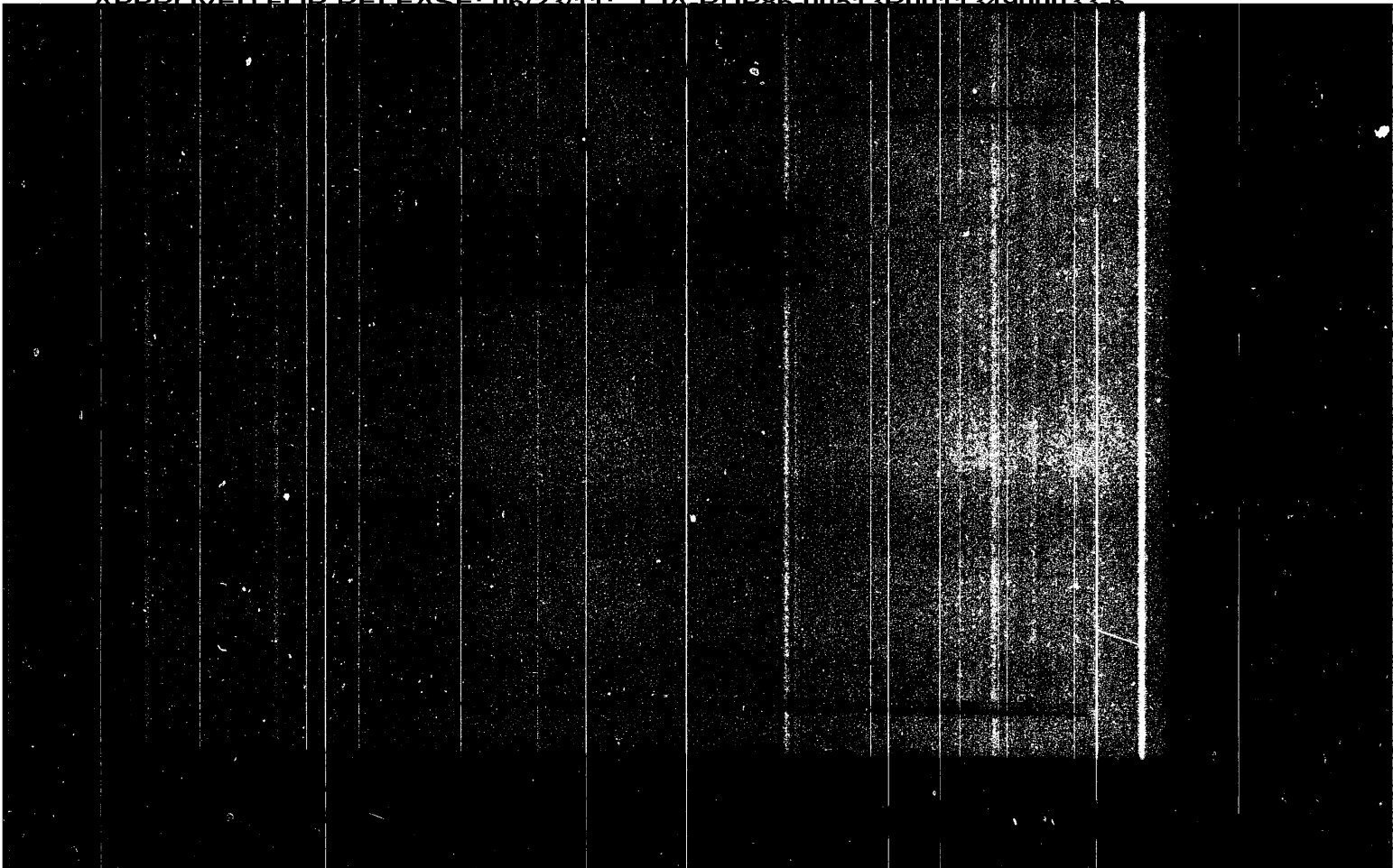
Utilizing circulation water of a turbine to supply boilers.

Sakh.prom. 28 no.4:34-35 '54.

(MLRA 7:7)

1. Krasnosvesdinakiy rafinadnyy zavod.  
(Feed water)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900033-6





MOGILKO, A.M.

Efficient heater. Sakh.prom. 28 no.1:31-32 '54. (MLRA 7:3)

1. Krasnosvesdinskiy rafinadnyy zavod. (Heating plants)

MOGILKO, A. M.

Superheaters

Flushing out steam superheaters. Sakh. prom. 27, No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress  
June 1953. UNCL.

MOGILKO, A.M.

**Exhaust Systems**

Lengthening the life of exhaust fan blades. Sakh. prom. 26, No. 6, 1952

Monthly List of Russian Accessions, Library of Congress, August, 1952. UNCLASSIFIED.